



**Single Family House Fire**  
**May 4, 2011**  
**11221 Ashley Drive**  
**Box Area 5-13**



- Initial report of house fire with two people trapped
- House explosion
- Gas fed fire
- Five houses damaged
- Two occupants ejected/seriously injured from home in explosion
- Occupants replaced gas clothes dryer approximately one day earlier



## Post Incident Analysis for 11221 Ashley Drive

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## Post Incident Analysis for 11221 Ashley Drive

### Executive Summary

At 0256 on May 4<sup>th</sup>, 2011, units were dispatched for a house fire with a report of "possibly people trapped, explosion" at 11214 Ashley Drive. While units were responding, the ECC operator gave numerous updates to the dispatched first due engine, E705B. The first update was that there was an explosion, fire showing and people trapped; the second report was that all occupants were out of the house; and the third update was that a tree had fallen on the house prior to the explosion. E721 was the first unit on the scene, and gave an on-scene report of a "house on fire and trees down" at 0301 hours. E721 added that the house had exploded and that there were wires down all around the house. Initial operations had E721, E705B and AT723 as Division "Alpha."

E721 advised command of two victims on the "Charlie" side of the structure and that E721's OIC was attempting to reach and assess the two victims. Division "Alpha" deployed two hand-lines to side "Alpha." E721 OIC located 2 trauma/burn victims on Side "Charlie," request EMS resources, requested assistance with patient care, exposure protection and advised that there was evidence of a gas fed fire in the debris pile.

K705E arrived on the scene and established a stationary command post on Side "Alpha." Units were assigned to Divisions "Alpha," "Charlie" and "Delta" for fire attack, exposure protection/victim extrication, and exposure protection, respectively. Units were assigned to an "Evacuation Group" for clearing of exposure residences and an "EMS Group" for patient extrication, treatment and transport.

Simultaneously as the victims were stabilized and transported, the fire/gas leak aspect of the incident was mitigated and the exposures on all sides were evacuated and checked for natural gas.

A RID and 2<sup>nd</sup> Alarm was dispatched on this incident, with only the RID units and two units from the 2<sup>nd</sup> Alarm being utilized.

According to the FEI, the cause was a leaking natural gas connection for the gas fed dryer in the basement which the occupant failed to cap when disconnecting the dryer, which led to a build-up and trapping of gas within the basement of the house which was ignited by an source which has not been determined as of this time.



## Post Incident Analysis for 11221 Ashley Drive

### Incident Statistics

- 96 Personnel
- 9 Engines
- 5 Truck Company's
- 2 Rescue Squads
- 1 BLS Units
- 4 ALS Units
- 7 Chief Officers
- 6 Support Units)
- \$700,000 total loss; structure/contents of incident location and structure of exposures

### Site & Structure Layout







## **Post Incident Analysis for 11221 Ashley Drive**

- Single family home, middle of the block, with main entrance facing side Alpha.
- House was completely destroyed upon arrival of F/R units.
- Hydrants that could be accessed with straight lays were 11220 & 11206 Ashley Drive.
- Building construction of homes in the area is of brick and block Type 5 construction with wood frame interior walls, floors, and roof.
- House occupants had moved in four days prior to incident.
- Occupant had attempted to change gas powered clothes dryer in basement less than 24-hours prior to incident.



**Aerial View of Property/Debris Field**

## **Fire Code History & Fire Systems**

- The code review of this structure is undetermined.
- It is unknown whether smoke detectors were present and/or activated at incident location.
- There were no suppression systems, such as sprinklers, installed in the structure.



## Post Incident Analysis for 11221 Ashley Drive

### Unit Breakdown

(XXXX signifies no status or bad status)

	<u>Dispatch Time</u>	<u>On Scene Time</u>
<b><u>Box</u></b>		
E705B	0256	XXXX
E721	0256	0303
E723	0256	XXXX
E720	0256	XXXX
E750	0256	0309
AT705	0256	XXXX
AT723	0256	0305
RS742B	0256	0303
A705	0256	XXXX
C705D	0259	0304
BC704	0256	0309
BC703	0256	0316
SA700	0303	0315
K705E	0258	0303
B705	0302	XXXX
EMS702	0259	XXXX
C703D	0302	XXXX
<b><u>RID</u></b>		
AT718	0258	0306
RS741	0258	0312
M723	0258	0309
<b><u>2<sup>nd</sup> Alarm</u></b>		
E707	0312	0322
E718	0312	0315
E754	0312	0325
E726	0312	0322
AT719	0312	0322
AT751	0312	0324
M725	0312	XXXX
AR716	0312	XXXX
CT705	0312	0335
<b><u>Special Alarms</u></b>		
M742B	0307	0316
M741	0307	0321
CP727	0312	0414



## Post Incident Analysis for 11221 Ashley Drive

### Chief Officers

BC703B	0309	0320
DC700	0303	0315
U100	0311	XXXX

### Initial On-Scene Report and Command

- E721 on scene report of house on fire and trees down. E721 within moments reports a house that “has blown up” and advised incoming units of wires down.
- K705E assumed command from E721 on Side “Alpha” with what would have been a single story structure, destroyed, with fire.
- E721 made a later report from Side “Charlie/Delta” of scene reporting two patients with burn and respiratory injuries, full demolition of house with “active burning” and an odor of gas, requested EMS support.
- Command requested of two additional ALS units.
- Division “Alpha” reported active gas fed fire on Side “Bravo.”
- Command confirmed address of 11221 Ashley Drive.
- Command originally directed E705B to assist Division “Alpha” with suppression, and then redirected them to assume “Evacuation Group” with AT705 to evacuate exposures.
- Command directed Division “Alpha” to control fire until arrival of Washington Gas.
- BC704 on scene, assigned to Division “Alpha” Supervisor
- E720 assigned Division “Delta.”
- C705D assigned Division “Charlie.”
- EMS702 assigned EMS Group.



## **Post Incident Analysis for 11221 Ashley Drive**



"Bravo/Charlie" Corner; Location of 1 Victim

### **Communications**

- Communications dispatched the incident on 7A.
- Communications assigned the event to incident talk group 7C.
- 2<sup>ND</sup> Alarm units were assigned to 7D.
- Radio traffic was manageable and a few units had to wait for air time.

### **On-Scene Operations**

- The first alarm units followed the SOP for Safe Structural Fire Fighting, section VII.
- The following divisions or groups were established:
  - Division "Alpha"
  - Division "Charlie"
  - Division "Delta"
  - Evacuation Group
  - EMS Group
  - Search Group
  - Rapid Intervention Group
  - Rehab
- The initial incident objectives followed the RECEO (Rescue, Exposure, Confinement, Extension, and Overhaul) plan.





## Post Incident Analysis for 11221 Ashley Drive

### Water Supply

- Two hydrants were used for this incident.
- The 1<sup>st</sup> engine initiated a straight lay from the hydrant at 11220 Ashley Drive and announced those instructions. The 2<sup>nd</sup> engine picked up the hydrant and charged the supply line.
- The 4<sup>th</sup> engine initiated a straight lay from the hydrant at 11220 Ashley Drive. The 5<sup>th</sup> engine picked up the hydrant and charged the supply line.



### Tactical Positioning

- The 1<sup>st</sup> engine positioned approximately 100 feet down the street in the “Bravo” direction.
- The 4<sup>th</sup> engine positioned approximately 100 feet up the street in the “Delta” direction.
- The 1<sup>st</sup> truck positioned approximately 500 feet down the street in the “Bravo” direction.
- The 2<sup>nd</sup> truck positioned approximately 300 feet up the street in the “Delta” direction.



## **Post Incident Analysis for 11221 Ashley Drive**

- The 1<sup>st</sup> arriving rescue squad positioned nearby, but without impeding access to any other units.
- The 2<sup>nd</sup> Alarm was staged at the north intersection of Ashley Drive and Schuykill Road.
- The initial EMS unit (A705) positioned across the street from the “Delta” exposure. Additional requested ALS units (M742B & M741) positioned at the south intersection of Ashley Drive and Schuykill Road to allow for rapid egress.

## **Initial Attack Line Deployment**

- There were a total of four hand-lines deployed on this fire.
- The 1<sup>st</sup> engine positioned a pre-connected line to the “Alpha/Bravo” side of the incident address.
- The 2<sup>nd</sup> engine positioned a pre-connected line to the same location as the 1<sup>st</sup> engine
- The 3<sup>rd</sup> engine (RIC) positioned a pre-connected line from E721 into in the street on Side “Alpha.”
- The 4<sup>th</sup> engine positioned a pre-connected line to Side “Delta.”

## **Accountability**

- Personal accountability tags (PAT) were used but not collected by command.
- There was a Personnel Accountability Report (PAR) approximately 30 minutes into the incident.

## **Rapid Intervention**

- The 3<sup>rd</sup> engine (E723) was the Rapid Intervention unit and positioned on side Alpha and placed safety line around downed power lines in that area. They were assigned as the RIG supervisor and AT718 and RS741 reported to them.



## **Post Incident Analysis for 11221 Ashley Drive**

### **Crew Integrity**

- Based on brief interviews after the incident and Firehouse and Post Incident Unit Reports, it appears that crew integrity was utilized by all units. There were a few units that did not report to their supervisor or leader right away. This is not acceptable and must be corrected.

### **Lessons Learned**

#### **Command**

- Command officers need “command aides” 24 hours a day. Command functions were directed by a captain in training for promotion to Certified Chief Officer and the Duty Operations Chief. Having multiple command officers allows for better assessment and allocation of resources, as well as better intake of information.
- Early arrival of additional chief level officers increases the continuity of command and allows for a comprehensive strategy to be communicated to unit officers.

#### **Communications**

- Every assignment given by command must be acknowledged by repeating the recipient’s unit number and the message that was sent (i.e. “E732 is OK on reporting to Division 3”) and maintaining that function. For instance, the 1<sup>st</sup> engine was originally directed to Division “Alpha” and acknowledged this assignment, but also worked on patient rescue/assessment on Side “Charlie.”

#### **Operations**

- While protection of life is the number one priority of the fire/rescue service, units and personnel must maintain and carry out their assigned tactical responsibilities, or communicate to command in an efficient manner a deviation from those orders.
- Units responding into the scene must allow for the appropriate positioning of other incoming units. Proximity placement of units was appropriate due to the nature of the incident (explosion with active gas fed fire), yet truck companies were excessively distant from the scene due to being “blocked out” by engine companies.
- This unique emergency presented many challenges to all crews on the incident scene, and while working within the SOP for Safe Structural Firefighting, crews were able to adapt to the altered emergency environment to carry out the appropriate tasks as assigned to them.



## **Post Incident Analysis for 11221 Ashley Drive**

- Both PEPCO and Washington Gas were needed and used on this event. A good practice is to assign a company or a FD person to stay with them and provide updates or plan changes as needed.
- The two injuries from this incident were blast victims. All personnel need to train for this type of event because of its unique signs and symptoms to the patient.
- When dealing with a gas-fed fire this information must be transmitted early and dealt with accordingly. Gas-fed fires are controlled by cutting off the gas supply.





Post Incident Analysis for 11221 Ashley Drive

Preplan or Maps

